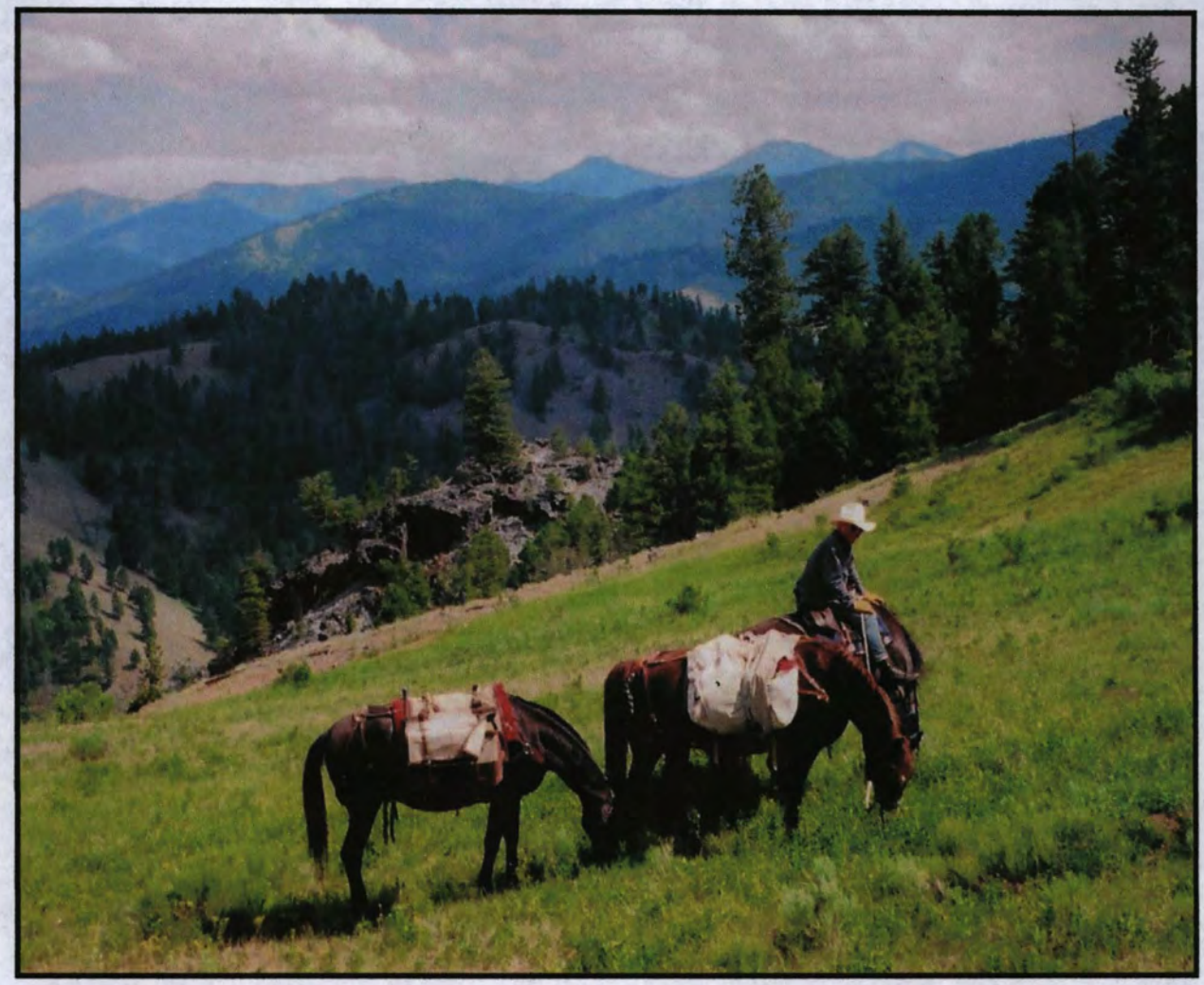

Jim Peek

University of Idaho, College of Natural Resources
Emeritus Professor

Research focus:

- Monitoring non-forested plant communities – 20-year monitoring dataset
- Climate and native vegetation production in wilderness
- Effects of fire on annual grass and shrub production
- Ungulate – habitat relationships

Graduate student: Guy Wagner

1988 - 2008

Jim Peek Vegetation Plot Studies

Purpose: Habitat quality and availability is a limiting factor in wildlife populations. Vegetation surrounding Taylor Ranch was analyzed to find the effects of grazing by wildlife and the effects fire has had on plant growth. Sample sites were chosen at various locations and elevations to study a broad range of vegetation types: both grasses and shrubs were included. This procedure has been repeated for seventeen years, producing a reliable data set from which future predictions can be made on the effect of habitat type and availability on wildlife.

Procedure: Seven different study areas have been examined each summer. The following is a description of each:

1. Second Bench- UTM (NAD 27) 11 T 0669491 E, 4996961 N
   South facing slope covered mainly by bluebunch wheat grass *(Pseduorogneria spicata)*, cheat grass *(Bromus tetorum)*, Sandberg bluegrass *(Poa secunda),* and Idaho fescue *(Festuca idahoensis)*. This area is heavily grazed by wildlife due to a salt lick that is nearby.
   First, a dry weight analysis of *Psuedorogneria spicata* was performed by cutting a sample of grass every two paces using a Daubenmire plot. Each sample was cut at the base of this year's new growth and placed in a paper sack to be weighed later. If no grass was present in the Daubenmire Square then an absence was recorded and nothing was collected. This was repeated twenty times, starting from the center of the plot. Next, 100 measurements of *Pseudogrogneria spicata* were taken to record the height of the seed stalks (in cm), and to verify whether seed heads were present. A sample was taken every two paces by stating whether a seed head was present and recording it's height if applicable.
2. West Bench- UTM (NAD 27) 11 T 0669161 E, 4996709 N
   Southeast facing slope with similar vegetation cover as the Second Bench. This location receives less grazing than the previous site.
   We followed the same process of analysis here as we did on the Second Bench.
3. Ram Canyon- UTM (NAD 27) 11T 0667974 E, 4996764 N
   South facing slope in rocky cliff area, dominated by Mountain mahogany (*Cercocarpus ledifolius)*.
   Here we counted and measured the length of twigs (twigs are considered this year's new growth) of *Cercocarpus ledifolius* on twenty different samples. From the central marker of the site, a sample was taken every four paces. A 4-meter plot was created using a 1.13 m string tied to a central marker. If no shrub was present within the designated circle, an absence was recorded. This procedure was slightly modified due to high mortality of the mahogany this year. There was little need to designate a plot because only a few shrubs were still alive in the site. A few Gooseberry *(Ribes viscossisunum)* plants were identified during this process, and recorded, but were of less significance than the mahogany. Next, fifty twigs were collected from random Mahogany

plants (not using the 4 m plot), clipped at the beginning of this year's new growth, to measure plant productivity.

4. Air Strip- UTM (NAD 27) 11T 0668655 E, 4996411 N
   North facing slope above the airstrip on Taylor Ranch. Prior to the fire of 2000, this site was a Douglas fir/ Mountain mahogany habitat. Post-fire it is now covered mainly in cheat grass and snowberry (*Symphoricarpus albus)*. Our main goal at this site was to identify new Mountain mahogany shoots. Our group spread out along the site and walked 30 meters uphill, regrouped, and scanned back to our starting point. No new shoots were found.
5. Sagebrush Flat- UTM (NAD 27) 11T 0668447 E, 4996352 N
   Large bench above the mouth of Rush Creek. Pre-fire this area was dominated by Big Sagebrush *(Artemesia tridentate)*, mostly due to overgrazing by stock. Since the recent fire, Big Sagebrush has been slow to return and the flat is mainly covered with grasses and a variety of mustard. We performed a similar procedure as we did on the Air Strip site, this time searching for Big Sagebrush. Four parent plants were located around the edge of the bench; all had reseeded since the fire. One of these plants had a large amount of seed heads on it, which may be a source of future sagebrush on the flat.
6. Pioneer Creek- UTM (NAD 27) 11T 0669066) E, 4995686 N
   This sample site is in a riparian area along Pioneer creek south of Taylor Ranch. Ninebark *(Physocarpus malvaceus)*, Spiraea *(Spiraea betulifolia)*, and Snowberry *(Symphoricarpus albus)* were counted in this site using the same 4-meter circle plot used at Ram Canyon. The number of stems and twigs of Ninebark and Snowberry were recorded, along with stems of Spiraea, within each plot. The tallest stem of each species was recorded for each plot. Different plots four paces apart were designated, for a total of twenty sampling areas. After this was completed, fifty twigs of both Snowberry and Ninebark were collected from random plants on the site to determine plant production by dry weight.
7. Mile High- UTM (NAD 27) 11T 0656730 E, 5001127 N
   ???Grass site???

Golden Meadows Wolf Trip- June 16-18, 2004
Jim Akenson, Cinnamon Robinson, Anna Pierce, Greg Hansen

6/16/04

- Used five head of stock to travel to Golden Meadow via Goat Creek Trail.
- 3:30 pm half mile west of Golden Meadow on main trail GH and CR saw white wolf with black saddle cross trail 25 meter in front of them.
- Evening- in rout back from Golden-Papoose saddle saw moderately fresh tracks and scat.

6/17/04

- Split into two group: JA and AP, and GH and CR. JA/AP went south of meadow from camp. 200 m south of meadow observed a dirty white wolf, which spooked and ran up slope to the east. Behavior was curious. They proceeded to investigate a spruce patch nearby and found no sign of digging. A bed was found in small lodgepole area 30 m from a creek, and hair collected. Hiked .5 mile SE above stream looking and listening, saw no wolf sign and hiked back to meadow.
- GH/CR went south of camp on main trail to area of previous day's wolf sighting. Hiked up ridge to the Cut-Across trail. Saw progressively fresh scat as we hiked NW, ¾ of way up saw very fresh scat and vomit. Hiked down spring in draw until we met back with Goat Creek Trail- no sign at all. Followed creek to the confluence of the creek that runs through Golden Meadow, and walked along it to the SW edge of the meadow.
- 12:10 pm- all four heard howling, three wolves involved. First two wolves sounded to the SW of GH/CR, the third returned call from east of GH/CR.
- 7:00 pm- GH, JA, AP, CR in meadow feeding five head of stock. Scraggly, dirty white wolf with very large bushy tail trotted through meadow from the west side. Noticed stock, ran to south end of meadow. It was not the same wolf that JA and AP observed earlier.

6/18/04

- 4:20- 6:20 AM- awoke to howling- two at the same time with one returning call. First very dispersed to the west of camp, then very near camp to the north. Most active howling was to the east of camp later that morning. Jim counted eight separate howling episodes coming from SW (2), due W (1) with horse or rasping voice, due E (2), and NE (1). The raspy voice wolf sounded identical to the Omega JA saw with a group of seven last winger.
- 9:00 AM- pulled out of camp for Taylor Ranch.
- 1:00 PM- arrived at Taylor.

Other Notes:
6/17- 1 elk bedded one mile east of Golden Meadow.
6/18- 1 cow moose ran down into meadow as if being chased.

Knapweed Summary Summer 2004

On the 24th of July Greg Hansen, Cinnamon Robinson, and Anna Pierce pulled the Knapweed patch North side of Big Creek, across from the mouth of Rush Creek. It **took them two hours to pull 176 weeds. Approximately 4 weeds were pulled that were dead and dry with the flower still on them; these were last years plants. The total number** of plants went down considerably from previous years. Last summer the interns pulled approximately 750 plants. The 5 previous years of pulling Knapweed always yielded **1100 plants. We hope this year's drastic decline of the Knapweed numbers is showing positive results of hand pulling weeds year after year. Nature Conservancy research has** shown that it does take 7 years to effectively remove Knapweed from an area pulling them by hand. We estimate that next summer there will be an even lower number of **Knapweed plants!**